

information; a pay table; information regarding a primary, secondary or bonus game such as instructions, hints and directions; television, movie or other entertainment video; textual, graphic, or other information such as the name of the casino; etc. The exterior display device may also act as a filter to selectively block a person's view of any distal display devices, or portions thereof.

[0092] b) Video information output by the intermediate display device may include: a primary, secondary or bonus game; a primary, secondary or tertiary part of a video game presented in conjunction with the other display devices; advertising information; a pay table; information regarding a primary, secondary or bonus game such as instructions, hints and directions; television, movie or other entertainment video; textual, graphic, or other information such as the name of the casino; etc. The intermediate display device may also act as a filter to selectively block a person's view of the interior display device, or portions thereof.

[0093] c) Video information output by the distal display device may include: a primary, secondary or bonus game; a primary, secondary or tertiary part of a video game presented in conjunction with the other display devices; advertising information; a pay table; information regarding a primary, secondary or bonus game such as instructions, hints and directions; television, movie or other entertainment video; textual, graphic, or other information such as the name of the casino; etc.

[0094] An intermediate shutter may also be used for blackout purposes. In this case, the shutter turns black and blocks view of the interior display device when the gaming machine experiences some disturbance. For example, it is often desirable to blackout the interior display device during safety, power-outage and tilt situations, or during any other condition where game results may be questioned. Maintenance miscues may also lead to gaming machine disturbances, e.g., maintenance personnel left the door open. This provides a method for protecting the integrity of game results on the interior display device, such as a reel game, by ensuring that games are only viewable to a player when the gaming machine is operating correctly.

[0095] As mentioned above, the present invention improves 3D graphics presentation for a gaming machine. Layered display devices of the present invention permit both virtual 3D graphics (created within a single screen) and actual 3D graphics (created between screens). More specifically, each screen permits 3D graphics rendering on that screen to create virtual effects of perceived depth. Also, each display device provides a viewing surface or face—with a different depth along the common line of sight relative to a viewer—for displaying one or more 3D graphics (partial or hole) to the viewer.

[0096] Characterization of 3D graphics may vary. The 3D presentation may include actual three-dimensional space characterizations, such as x, y and z coordinates. In one embodiment, the z-dimension refers to the depth or distance that separates screens for the multiple display devices. In a specific embodiment, the z-dimension is measured along the common line of sight between multiple display devices. Images created on the multiple displays may thus have an actual and physical depth dimension. For 3D graphics rendering, this permits graphics with a width, height and (virtual and/or actual) depth. In a specific embodiment,

width and height of graphics are measured along an x-axis and y-axis of screen surfaces for each of the display devices. Depth may then be measured along a z-axis that passes through a portion of each of the multiple screens along a common line of sight. In some cases, one or more of the screens are relatively flat, and this z-axis passes relatively perpendicular to each of the screens.

[0097] A visual presentation typically includes multiple graphics components. The layered display devices may cooperate to provide 3D visual presentation by each displaying their own 3D graphics components or parts. For example, the multiple display devices may cooperate to display a 3D image by separately displaying different parts of the whole image on each of the display screens. In this case, a proximate display device shows one portion of the 3D image, while a distal or underlying display device shows another portion of the 3D image. As result, the gaming machine shows a 3D representation that is formed in three physical or actual dimensions: an x and y of the proximate display screen, an x and y of the distal display screen, and a depth, D, or z dimension of the image that is at least partially dependent on the distance between the two display devices. A third display device may be used to add another set of x and y dimensions and another depth, D, along the z dimension.

[0098] In one embodiment, each of the display devices shows virtual 3D images, and controls the perception of depth in each screen. This permits collective 3D images provided by the multiple display devices to cause a player to perceive a depth that is based or derived from a combination of virtual depth and the actual depth, D. For example, a gaming machine processor may use or multiply the actual depth, D, by a factor to generate a perceived depth in rendered 3D images for each of the screens that cooperates with the actual depth, D. This permits a game designer to change the perceived depth of the entire 3D image by manipulating the virtual depth to thereby modify the perceived combination of virtual and actual depths.

[0099] FIGS. 5A and 5B show exemplary video data output on the display devices 18 and gaming machine 10 of FIG. 1A. Again, gaming machine 10 of FIG. 1A includes an exterior or frontmost display device 18a, a middle or intermediate display device 18b, and an interior or backmost display device 18c. The frontmost display device 18a displays a virtual 3D first reel image 132 on a portion of its display screen 134. All other portions 133 of screen 134 are translucent or transparent. The intermediate display device 18b shows a virtual three dimensional reel image 135 on one portion of its display screen 136, while all other portions 137 of screen 136 are translucent or transparent. The third display device 18c displays a virtual 3D reel image 138 and a background image 139 covering the portions of its screen 131 outside reel image 138. These three display screens 134, 137 and 131 simultaneously display each respective image to enable a player to see an overall 3D image, as illustrated in the FIG. 5B (illustrated in two dimensions, that is), of all three reels in a 3D format by looking through the first display screen 134.

[0100] FIGS. 5C and 5D show exemplary poker video data output on the display devices 18 and gaming machine 10 of FIG. 1A in accordance with another specific embodiment. As will be described in further detail below, the video